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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,588	12/27/2000	Adam T. Lake	42390P10255	1641

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EXAMINER

AWAD, AMR A

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,588

Applicant(s)

LAKE ET AL.

Examiner

Amr Awad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

1. Claims 1, 4-6 and 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Hindus et al. (US Patent NO. 6,282,206; hereinafter referred to as Hindus).

As to claim 1, Hindus teaches an apparatus includes haptel wherein a signal is generated in response to subjecting the haptel to a stimulus (col. 11, lines 6-18).

As to claim 4, as seen in col. 11, lines 6-18, Hindus shows that the device is a joystick (pointing device).

As to claim 5, Hindus teaches that the haptel is configured with an information transmission system (col. 11, lines 6-18).

As to independent claim 6, the claim is a method corresponding to the apparatus of claim 1 and is analyzed as previously discussed with respect to claim 1.

As to claim 9, as seen in col. 11, lines 6-18, Hindus shows that the device is a joystick (pointing device).

As to claim 10, Hindus teaches that the haptel is configured with an information transmission system (col. 11, lines 6-18).

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2. Claims 11, 13, 16 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by MacLean et al. (US patent NO. 6,529,183; hereinafter referred to as MacLean).

As to claim 11, MacLean teaches a haptel (302) wherein the haptel is responsive to a signal (col. 6, lines 10-27). MacLean teaches having a quantity rendered on the haptel (col. 19, lines 42-51).

As to claim 13, MacLean teaches using the haptel device as a pointing device (in MacLean's device, the pointing device is a touch-sensitive or a pushbuttons) (col. 21, lines 6-14).

As to claim 16, method claim 16 corresponds to apparatus claim 11 and is analyzed as previously discussed with respect to claim 11.

As to claim 19, MacLean teaches using the haptel device as a pointing device (in MacLean's device, the pointing device is a touch-sensitive or a pushbuttons) (col. 21, lines 6-14).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hindus in view of Fish (US patent NO. 6,337,678).

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Hindus does not expressly teach that the device comprising an arrays of haptels.

However, Fish (figure 6) teaches a haptic device that includes an array of haptels (604) (col. 8, line 63 through col. 9, line 9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Fish to include an array of haptels to Hindus' device so as to increase the agility of the device.

5. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hindus in view of Shaw wt al. (US patent NO. 6,525,711; hereinafter referred to as Shaw)

Hindus does not teach that the stimulus is selected from the group consisting of spatial position, velocity, temperature, force, pressure and emotion.

However, Shaw teaches a haptic interface that includes interaction through force, temperature and position (col. 7, lines 19-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Shaw to be incorporated to Hindus so as to increase the versatilities of the device.

6. Claims 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacLean in view of Fish.

MacLean does not expressly teach that the device comprising an arrays of haptels.

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However, Fish (figure 6) teaches a haptic device that includes an array of haptels (604) (col. 8, line 63 through col. 9, line 9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Fish to include an array of haptels to MacLean's device so as to increase the agility of the device.

7. Claims 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacLean in view of Shaw.

MacLean does not specifically teach that the stimulus is selected from the group consisting of spatial position, velocity, temperature, force, pressure and emotion.

However, Shaw teaches a haptic interface that includes interaction through force, temperature and position (col. 7, lines 19-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Shaw to be incorporated to MacLean so as to increase the versatilities of the device.

8. Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacLean in view of Hindus.

MacLean does not teach that the haptel is configured with an information transmission system.

However, Hindus teaches that the haptel is configured with an information transmission system (col. 11, lines 6-18).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Hindus having transmission system to MacLean's device so as to widen the usage of the device and therefore, increase the versatilities.

9. Claims 21, 24-26, 29-31, 34-36 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hindus in view of MacLean.

As to claim 21, Hindus teaches an apparatus includes a first haptel (joystick device at the first communication) wherein a signal is generated in response to subjecting the haptel to a stimulus, a transmitter to transmit the signal (the transmitter is what transmit the data from one communication station to another) and a receiver to receive the signal (the receiver is what receive the data from one communication station to another), and a second haptel to reproduce the stimulus responsive to the signal (col. 11, lines 6-18).

Hindus does not teach having the quantity rendered on the haptel.

However, MacLean teaches a haptel (302) wherein the haptel is responsive to a signal (col. 6, lines 10-27). MacLean teaches having a quantity rendered on the haptel (col. 19, lines 42-51).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include MacLean's teaching of having the quantity of the haptel presented to be incorporated to Hindus' device so as to be able to measure the force of the haptel and therefore, to be able to measure the value of the haptel.

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As to claim 24, as seen in col. 11, lines 6-18, Hindus shows that the device is a joystick (pointing device).

As to claim 25, Hindus teaches that the haptel is configured with an information transmission system (col. 11, lines 6-18).

As to claim 26, method of claim 26 corresponds to the apparatus of claim 21 and is analyzed as previously discussed with respect to claim 21.

As to claim 29, as seen in col. 11, lines 6-18, Hindus shows that the device is a joystick (pointing device).

As to claim 30, Hindus teaches that the haptel is configured with an information transmission system (col. 11, lines 6-18).

As to claim 31, Hindus teaches an apparatus includes haptel wherein a first signal is generated in response to subjecting the haptel to a stimulus, and the haptel is responsive to a second signal (the signal produced in the joystick at another communication station) (col. 11, lines 6-18).

Hindus does not teach having the quantity rendered on the haptel.

However, MacLean teaches a haptel (302) wherein the haptel is responsive to a signal (col. 6, lines 10-27). MacLean teaches having a quantity rendered on the haptel (col. 19, lines 42-51).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include MacLean's teaching of having the quantity of the haptel presented to be incorporated to Hindus' device so as to be able to measure the force of the haptel and therefore, to be able to measure the value of the haptel.

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As to claim 34, Hindus shows that the device is a joystick (pointing device).

As to claim 35, Hindus teaches that the haptel is configured with an information transmission system (col. 11, lines 6-18).

As to claim 36, method of claim 36 corresponds to apparatus claim 31 and is analyzed as previously discussed with respect to claim 31.

As to claim 39, Hindus shows that the device is a joystick (pointing device).

As to claim 40, Hindus teaches that the haptel is configured with an information transmission system (col. 11, lines 6-18).

10. Claims 22, 27, 32 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Hindus and MacLean in view of Fish..

Hindus and MacLean do not expressly teach that the device comprising an arrays of haptels.

However, Fish (figure 6) teaches a haptic device that includes an array of haptels (604) (col. 8, line 63 through col. 9, line 9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Fish to include an array of haptels to Hindus' device so as to increase the agility of the device.

11. Claims 23, 28, 33 and 38 rejected under 35 U.S.C. 103(a) as being unpatentable over Hindus and MacLean in view of Shaw.

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Hindus and MacLean do not specifically teach that the stimulus is selected from the group consisting of spatial position, velocity, temperature, force, pressure and emotion.

However, Shaw teaches a haptic interface that includes interaction through force, temperature and position (col. 7, lines 19-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Shaw to be incorporated to Hindus so as to increase the versatilities of the device.

Response to Arguments

12. Applicant's arguments filed on 07/01/2003 have been fully considered but they are not persuasive.

Applicant (first paragraph of page 11) argued that Hindus does not teach an apparatus comprising: a haptel wherein a signal is generated in response to subjecting said haptel to a stimulus" as claimed in claim 1. Examiner respectfully disagrees. Examiner submits that the limitations of claim 1 are quiet broad and that Hindus fairly teach the claimed limitations. The meaning of the term "haptic" is "relating to or based on the sense of touch" (Merriam Webster's collegiate dictionary "tenth edition"). Therefore, the term "haptel" simply means a device relating to on the sense of touch. Accordingly, claim 1 is directed to an apparatus that includes a device or an element relate to the sense of touch, wherein a signal is generated in response to subjecting such device to a stimulus. As discussed in the rejection above, Hindus specifically

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recites, "the high bandwidth input type can be converted to a low bandwidth output signal which provide haptic feedback to a receiver at a second communication station¹⁴" (col. 11, lines 6-13). This clearly teaches that a haptel (input device) produces a signal when the haptel is generating in response to subjecting the haptel to a stimulus (a stimulus here is the movement of the joystick). In fact the claim is so broad that it can read on any device that when touched (such as joystick being moved) and creates a signal responsive to this touch, will read on the claimed limitations. Similarly, claim 6 is rejected under the same basis as claim 1. In fact in the Applicant's specification (figures 3-4 and page 7, second paragraph), the teaching is fairly similar to the teaching of Hindus.

Applicant (page 12, second paragraph) argued that MacLean does not disclose "an apparatus comprising: a haptel, wherein said haptel is responsive to haptic data, such that the haptic data is rendered on said haptel," as claimed in claim 11. Examiner respectfully disagrees. Applicant seemed to distinguish between a haptel and a haptic interface device. Applicant argued, "A haptel refers to a single haptic element". Examiner respectfully submits that such specificity is not included in the claim. Examiner believes that a haptic interface device can read on the term haptel. Even if assume for the sake of argument that a haptel is a single haptic element, one can argue that the haptic interface device is a device that include a single haptic element because it is a single integrated device.

Applicant (third paragraph of page 12) argued that MacLean does not teach that the haptel is responsive to haptic data as claimed, and that a haptic data may, for

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example, define a virtual sensation to be rendered and include such data as coordinates that define a spatial position, velocity, temperature, force, and Pressure. Examiner respectfully disagrees. As indicated in the Office Action above, the examiner specifically states, "a haptel is responsive to a signal (col. 6, lines 10-27)". This signal is equivalent to the haptic data recited in the claim. As to having the haptic data being velocity, force or pressure; such limitations are not included in claim 11. Claim 16 includes features similar to those disclosed in claim 11, and the rejection of claim 16 is similar to the rejection of claim 11 as indicated above.

Applicant (starting from first paragraph of page 13 through the first paragraph of page 14) argued claims 2-3, 7-8, 12, 14-15 and 17-18 as being dependent on claims 1, 6, 11 and 16; which were previously argued to be allowed over Hindus. However, as discussed above, these claims are still rejected over the cited references. Therefore, the rejection to claims 2-3, 7-8, 12, 14-15 and 17-18 is still proper as indicated above in the Office Action.

Applicant (paragraph 1 of page 15) argued that Hindus in view of MacLean do not teach or suggest "a first haptel to generate a signal in response to a stimulus," as claimed in claim 21, and that a haptel refers to a single haptic element. It is respectfully submitted that such argument was previously introduced with respect to the argument to claims 1, 6, 11 and 16 above, and the examiner has responded to this argument above. Applicant (paragraph 2 of page 15) argued that the combination of Hindus and MacLean does not teach, "a second haptel to reproduce the stimulus responsive to the signal," as claimed. Examiner respectfully disagrees. It is respectfully submitted by the Examiner,

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that it is clear from the rejection above, that the combination of Hindus and MacLean fairly reads on the limitations of claim 21 as amended. As to the argument that the reproduce stimulus generates the sensation, which may include the reproduced temperature of the finger...etc. it is respectfully submitted that such limitations are not included in claim 21. claims 21, 31 and 36 are equivalently rejected.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (703)308-8485. The examiner can normally be reached on Monday-Friday, between 9:00AM to 5:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras can be reached on (703)305-9720. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

A handwritten signature in cursive script, appearing to read "Amir Ahmed Awon".

A.A
September 12, 2003